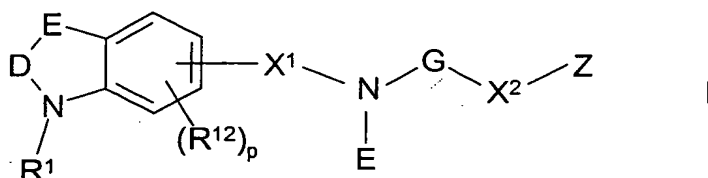


Patent Claims

1. Compounds of the formula I

5



10

in which

R^1 is H, A or SO_2A ,

15

A is straight-chain or branched alkyl having from 1 to 10 carbon atoms, alkenyl having from 2 to 10 carbon atoms or alkoxy-alkyl having from 2 to 10 carbon atoms, and

D-E is $R^2C=CR^4$ or $R^2R^3C-CR^4R^5$,

in which

20

R^2 , R^3 , R^4 and R^5 are selected, independently, from
H, A, cycloalkyl having from 3 to 7 carbon atoms, Hal,
 CH_2Hal , $CH(Hal)_2$, $C(Hal)_3$, NO_2 , $(CH_2)_nCN$, $(CH_2)_nN(R^6)_2$,
 $(CH_2)_nN(R^6)Ar$, $(CH_2)_nN(R^6)Het$, $(CH_2)_nN(Ar)_2$, $(CH_2)_nN(Het)_2$,
 $(CH_2)_nCOOR^6$, $(CH_2)_nCOOAr$, $(CH_2)_nCOOHet$,
 $(CH_2)_nCON(R^6)_2$, $(CH_2)_nCON(R^6)Ar$, $(CH_2)_nCON(R^6)Het$,
 $(CH_2)_nCON(Ar)_2$, $(CH_2)_nCON(Het)_2$, $(CH_2)_nNR^6COR^6$,
 $(CH_2)_nNR^6CON(R^6)_2$, $(CH_2)_nNR^6SO_2A$, $(CH_2)_nSO_2N(R^6)_2$,
 $(CH_2)_nSO_2NR^6(CH_2)_mAr$, $(CH_2)_nSO_2NR^6(CH_2)_mHet$,
 $(CH_2)_nS(O)_wR^6$, $(CH_2)_nS(O)_wAr$, $(CH_2)_nS(O)_wHet$,
 $(CH_2)_nOOCR^6$, $(CH_2)_nHet$, $(CH_2)_nAr$, $(CH_2)_nCOR^6$,
 $(CH_2)_nCO(CH_2)_mAr$, $(CH_2)_nCO(CH_2)_mHet$,

30

$(CH_2)_nCOO(CH_2)_mAr$, $(CH_2)_nCOO(CH_2)_mHet$, $(CH_2)_nOR^6$,
 $(CH_2)_nO(CH_2)_mAr$, $(CH_2)_nO(CH_2)_mHet$, $(CH_2)_nSR^6$,
 $(CH_2)_nS(CH_2)_mAr$, $(CH_2)_nS(CH_2)_mHet$, $(CH_2)_nN(R^6)(CH_2)_mAr$,
 $(CH_2)_nN(R^6)(CH_2)_mHet$, $(CH_2)_nSO_2N(R^6)(CH_2)_mAr$,
5 $(CH_2)_nN(R^6)SO_2(CH_2)_mAr$, $(CH_2)_nSO_2N(R^6)(CH_2)_mHet$,
 $(CH_2)_nN(R^6)SO_2(CH_2)_mHet$, $(CH_2)_nCON(R^6)(CH_2)_mAr$,
 $(CH_2)_nN(R^6)CO(CH_2)_mAr$, $(CH_2)_nCON(R^6)(CH_2)_mHet$,
 $(CH_2)_nN(R^6)CO(CH_2)_mHet$, $CH=N-OA$, $CH_2CH=N-OA$,
 $(CH_2)_nNHO\bar{A}$, $(CH_2)_nCH=N-Het$, $(CH_2)_nOCOR^6$,
10 $(CH_2)_nOC(O)N(R^6)_2$, $(CH_2)_nOC(O)NR^6(CH_2)_mAr$,
 $(CH_2)_nOC(O)NR^6(CH_2)_mHet$, $(CH_2)_nNR^6COOR^6$,
 $(CH_2)_nNR^6COO(CH_2)_mAr$, $(CH_2)_nNR^6COO(CH_2)_mHet$,
 $(CH_2)_nN(R^6)CH_2CH_2OR^6$, $(CH_2)_nN(R^6)CH_2CH_2OCF_3$,
 $(CH_2)_nN(R^6)C(R^6)HCOOR^6$, $(CH_2)_nN(R^6)CH_2COHet$,
15 $(CH_2)_nN(R^6)CH_2Het$, $(CH_2)_nN(R^6)CH_2CH_2N(R^6)CH_2COOR^6$,
 $(CH_2)_nN(R^6)CH_2CH_2N(R^6)_2$, $CH=CHCOOR^6$,
 $CH=CHCH_2NR^6Het$, $CH=CHCH_2N(R^6)_2$, $CH=CHCH_2OR^6$,
 $(CH_2)_nN(COOR^6)COOR^6$, $(CH_2)_nN(CONH_2)COOR^6$,
 $(CH_2)_nN(CONH_2)CONH_2$, $(CH_2)_nN(CH_2COOR^6)COOR^6$,
20 $(CH_2)_nN(CH_2CONH_2)COOR^6$, $(CH_2)_nN(CH_2CONH_2)CONH_2$,
 $(CH_2)_nCHR^6COR^6$, $(CH_2)_nCHR^6COOR^6$, $(CH_2)_nCHR^6CH_2OR^6$,
 $(CH_2)_nOCN$ or $(CH_2)_nNCO$, in which

25 R^6 is selected, independently, from H, A or cycloalkyl having
from 3 to 7 carbon atoms,

30 Het is a saturated, unsaturated or aromatic mono- or bicyclic
heterocyclic radical which is unsubstituted or mono- or poly-
substituted by A, Hal, NO_2 , CN, OR^6 , $N(R^6)_2$, $COOR^6$,
 $CON(R^6)_2$, NR^6COR^6 , $NR^6CON(R^6)_2$, NR^6SO_2A , COR^6 ,
 $SO_2N(R^6)_2$, $S(O)_wA$ and/or $OOCR^6$,

Ar is an aromatic hydrocarbon radical having from 6 to 14 carbon atoms which is unsubstituted or mono- or polysubstituted by A, Hal, NO₂, CN, OR⁶, N(R⁶)₂, COOR⁶, CON(R⁶)₂, NR⁶COR⁶, NR⁶CON(R⁶)₂, NR⁶SO₂A, COR⁶, SO₂N(R⁶)₂, S(O)_wA and/or OOCR⁶,

w is 0, 1, 2 or 3, and

n and m, independently of one another, are 0, 1, 2, 3, 4 or 5;

X¹ is (CHR⁷)_g or (CHR⁷)_h-Q-(CHR⁸)_k, in which

Q is selected from O, S, N-R⁶, (O-CHR⁷)_g, (CHR⁷-O)_g, CR⁹=CR¹⁰, (O-CHR⁹CHR¹⁰)_g, (CHR⁹CHR¹⁰-O)_g, C=O, C=S, C=NR⁶, CH(OR⁶), C(OR⁶)(OR⁶), C(=O)O, OC(=O), OC(=O)O, C(=O)N(R⁶), N(R⁶)C(=O), C(=S)N(R⁶), N(R⁶)C(=S), OC(=O)N(R⁶), N(R⁶)C(=O)O, CH=N-O, CH=N-NR⁶, OC(O)NR⁶, NR⁶C(O)O, S=O, SO₂, SO₂NR⁶ and NR⁶SO₂,

g is 1, 2, 3, 4, 5 or 6,

h and k, independently of one another, are 0, 1, 2, 3, 4, 5 or 6, and

R⁷, R⁸, R⁹, R¹⁰ and R¹², independently of one another, are as defined for R² to R⁵;

p is 0, 1, 2 or 3

E is H, A, (CH₂)_nHet, (CH₂)_nAr or cycloalkyl having from 3 to 7 carbon atoms,

G is an optionally substituted alkylene radical having from 1 to 4 carbon atoms, where the substituents are selected from the meanings indicated for R⁴,

5 or

E and

10 G, together with the N atom to which they are bonded, are an unsubstituted or substituted 5-, 6- or 7-membered, mono- or bicyclic heterocyclic radical, which may have 1, 2 or 3 further heteroatoms selected from N, O and S,

15 X² is a bond or is selected, independently, from the meanings indicated for X¹,

20 Z is H or is a saturated, mono- or polyethylenically unsaturated or aromatic carbocyclic radical having from 5 to 10 carbon atoms or a saturated, mono- or polyethylenically unsaturated or aromatic heterocyclic radical having from 4 to 9 carbon atoms, where the carbocyclic or heterocyclic radical may be mono- or polysubstituted, where the substituents are selected, independently of one another, from the meanings of R² to R⁵ other than H, and where the heterocyclic radical contains from 1 to 4 heteroatoms selected, independently of one another, from N, O and S,

25 and

30 Hal is F, Cl, Br or I,

and pharmaceutically usable derivatives, salts, solvates and stereoisomers and mixtures thereof.

2. Compounds of the formula I according to Claim 1, in which

- 5 A is straight-chain alkyl having from 1 to 4 carbon atoms or
branched alkyl having from 3 to 6 carbon atoms, and
- 10 D-E is $R^2C=CR^4$ or $R^2R^3C-CR^4R^5$, in particular $R^2C=CR^4$,
in which R^2 , R^3 and R^5 are selected, independently, from H, A
and cycloalkyl having from 3 to 7 carbon atoms, and
 R^4 is Hal, CH_2Hal , $CH(Hal)_2$, $C(Hal)_3$, NO_2 , $(CH_2)_nCN$,
 $(CH_2)_nCOOR^6$, $(CH_2)_nCON(R^6)_2$, $(CH_2)_nNR^6COR^6$,
 $(CH_2)_nNR^6CON(R^6)_2$, $(CH_2)_nNR^6SO_2A$, $(CH_2)_nSO_2N(R^6)_2$,
 $(CH_2)_nS(O)_wA$, $(CH_2)_nOOCR^6$, $(CH_2)_nCOR^6$,
15 $(CH_2)_nCO(CH_2)_mAr$, $(CH_2)_nCO(CH_2)_mHet$,
 $(CH_2)_nCOO(CH_2)_mAr$, $(CH_2)_nCOO(CH_2)_mHet$, $(CH_2)_nOR^6$,
 $(CH_2)_nO(CH_2)_mAr$, $(CH_2)_nO(CH_2)_mHet$, $(CH_2)_nSR^6$,
 $(CH_2)_nS(CH_2)_mAr$, $(CH_2)_nS(CH_2)_mHet$, $(CH_2)_nN(R^6)(CH_2)_mAr$,
 $(CH_2)_nN(R^6)(CH_2)_mHet$, $(CH_2)_nSO_2N(R^6)(CH_2)_mAr$,
20 $(CH_2)_nN(R^6)SO_2(CH_2)_mAr$, $(CH_2)_nSO_2N(R^6)(CH_2)_mHet$,
 $(CH_2)_nN(R^6)SO_2(CH_2)_mHet$, $(CH_2)_nCON(R^6)(CH_2)_mAr$,
 $(CH_2)_nN(R^6)CO(CH_2)_mAr$, $(CH_2)_nCON(R^6)(CH_2)_mHet$,
 $(CH_2)_nN(R^6)CO(CH_2)_mHet$, $(CH_2)_nN(R^6)_2$, $(CH_2)_nOCOR^6$,
 $(CH_2)_nOC(O)N(R^6)_2$, $(CH_2)_nOC(O)NR^6(CH_2)_mAr$,
25 $(CH_2)_nOC(O)NR^6(CH_2)_mHet$, $(CH_2)_nNR^6COOR^6$,
 $(CH_2)_nNR^6COO(CH_2)_mAr$, $(CH_2)_nNR^6COO(CH_2)_mHet$,
 $(CH_2)_nN(R^6)CH_2CH_2OR^6$, $(CH_2)_nN(R^6)CH_2CH_2OCF_3$,
 $(CH_2)_nN(R^6)C(R^6)HCOOR^6$, $(CH_2)_nN(R^6)CH_2COHet$,
 $(CH_2)_nN(R^6)CH_2Het$, $(CH_2)_nN(R^6)CH_2CH_2N(R^6)CH_2COOR^6$,
30 $(CH_2)_nN(R^6)CH_2CH_2N(R^6)_2$, $CH=CHCOOR^6$,
 $(CH_2)_nN(COOR^6)COOR^6$, $(CH_2)_nN(CONH_2)COOR^6$,
 $(CH_2)_nN(CONH_2)CONH_2$, $(CH_2)_nN(CH_2COOR^6)COOR^6$,
 $(CH_2)_nN(CH_2CONH_2)COOR^6$, $(CH_2)_nN(CH_2CONH_2)CONH_2$,

$(\text{CH}_2)_n\text{CHR}^6\text{COR}^6$, $(\text{CH}_2)_n\text{CHR}^6\text{COOR}^6$ or
 $(\text{CH}_2)_n\text{CHR}^6\text{CH}_2\text{OR}^6$ and in particular Hal, CH_2Hal , $\text{CH}(\text{Hal})_2$,
 $\text{C}(\text{Hal})_3$, NO_2 , $(\text{CH}_2)_n\text{CN}$, $(\text{CH}_2)_n\text{COOR}^6$, $(\text{CH}_2)_n\text{CON}(\text{R}^6)_2$,
 $(\text{CH}_2)_n\text{SO}_2\text{N}(\text{R}^6)_2$ or $(\text{CH}_2)_n\text{S}(\text{O})_w\text{A}$,

5

m is 0, 1, 2, 3, 4 or 5 and

n is 0, 1, 2 or 3 and
 in particular 0 or 1;

10

X^1 is $(\text{CHR}^7)_g$ or $\text{Q}-(\text{CHR}^8)_k$, in which

Q is selected from O, S, N-R^6 , $(\text{O-CHR}^7)_g$, $(\text{CHR}^7\text{-O})_g$,
 $\text{CR}^9=\text{CR}^{10}$, $(\text{O-CHR}^9\text{CHR}^{10})_g$, $(\text{CHR}^9\text{CHR}^{10}\text{-O})_g$, C=O , C=S ,
 C=NR^6 , $\text{C}(\text{OR}^6)(\text{OR}^6)$, C(=O)O , OC(=O) , OC(=O)O ,
 $\text{C(=O)N(R}^6)$, $\text{N(R}^6)\text{C(=O)}$, $\text{OC(=O)N(R}^6)$, $\text{N(R}^6)\text{C(=O)O}$,
 CH=N-O , CH=N-NR^6 , OC(O)NR^6 , $\text{NR}^6\text{C(O)O}$, S=O , SO_2 ,
 SO_2NR^6 and NR^6SO_2 ,

15

20 g is 1, 2, 3, 4, 5 or 6 and in particular 2, 3 or 4,

k is 0, 1, 2, 3, 4, 5 or 6 and in particular 1, 2 or 3, and

25 R^7 , R^8 , R^9 and R^{10} are selected, independently, from the meanings
 indicated for R^2 to R^5 ;

25

X^2 is a bond or independently is $(\text{CHR}^7)_g$ or $\text{Q}-(\text{CHR}^8)_k$, in which

30 Q is selected from O, S, N-R^6 , $(\text{O-CHR}^7)_g$, $(\text{CHR}^7\text{-O})_g$, $(\text{O-CHR}^9\text{CHR}^{10})_g$,
 $(\text{CHR}^9\text{CHR}^{10}\text{-O})_g$, C=O , $\text{CH}(\text{OR}^6)$, C(=O)O , OC(=O) , $\text{C(=O)N(R}^6)$,
 $\text{N(R}^6)\text{C(=O)}$, S=O , SO_2 , SO_2NR^6 and

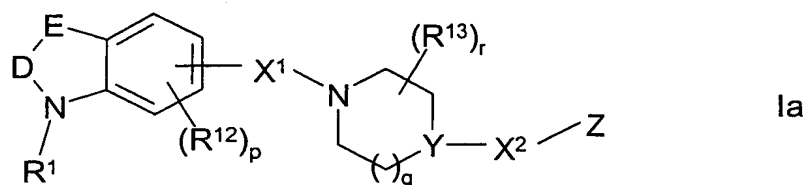
30

NR^6SO_2 , where g in X^2 is preferably 1 or 2 and k in X^2 is preferably 0 or 1, and

R^{12} is selected, independently, from the meanings of R^4 other than H and in particular, independently, is F, Cl, Br, I, CN, NO_2 , NH_2 , CF_3 , OCF_3 , $\text{C}(\text{NH})\text{NOH}$ or SO_2CH_3 ,

and pharmaceutically usable derivatives, salts, solvates and stereoisomers and mixtures thereof.

3. Compounds according to Claim 1, selected from compounds of the formula Ia,



in which

R^1 , D-E and Z are as defined above, and in which

X^1 is $(\text{CHR}^7)_g$ or $(\text{CHR}^7)_h\text{-Q-(CHR}^8)_k$, in which

Q is selected from O, S, N-R^6 , $(\text{O-CHR}^7)_g$, $(\text{CHR}^7\text{-O})_g$, $\text{CR}^9=\text{CR}^{10}$, $(\text{O-CHR}^9\text{CHR}^{10})_g$, $(\text{CHR}^9\text{CHR}^{10}\text{-O})_g$, C=O, C=S, C=NR^6 , $\text{CH(OR}^6)$, $\text{C(OR}^6)(\text{OR}^6)$, C(=O)O , OC(=O) , OC(=O)O , $\text{C(=O)N(R}^6)$, $\text{N(R}^6)\text{C(=O)}$, $\text{OC(=O)N(R}^6)$, $\text{N(R}^6)\text{C(=O)O}$, CH=N-O , CH=N-NR^6 , OC(O)NR^6 , $\text{NR}^6\text{C(O)O}$, S=O, SO_2 , SO_2NR^6 and NR^6SO_2 ,

g is 1, 2, 3, 4, 5 or 6,

h and k, independently of one another, are 0, 1, 2, 3, 4, 5 or 6, and

5 R^6 is selected, independently, from H, A or cycloalkyl having from 3 to 7 carbon atoms,

R^7 , R^8 , R^9 and R^{10} are selected, independently, from the meanings indicated for R^2 to R^5 ;

10

Y is CH, N, COR^{11} , CSR^{11} , an unsubstituted or substituted, spiro-linked carbocyclic radical having from 5 to 7 carbon atoms or an unsubstituted or substituted, spiro-linked, 5-, 6- or 7-membered heterocyclic radical having from 1 to 3 hetero-
15 atoms selected from N, S or O,

R^{11} is H, A, $(CH_2)_nHet$, $(CH_2)_nAr$ or cycloalkyl having from 3 to 7 carbon atoms,

20 X^2 is a bond or is selected, independently, from the meanings indicated for X^1 , and is preferably a bond or O, S, $N-R^7$, CH_2 or CH_2CH_2 ,

p, q and r, independently of one another, are 0, 1, 2 or 3

25

and

Hal is F, Cl, Br or I, and

30

R^{12} and R^{13} , independently of one another, are selected from the meanings of R^4 other than H and are preferably, independ-

ently of one another, Hal, CN, NO₂, OR⁶, N(R⁶)₂, NO₂, CN, COOR⁶, CON(R⁶)₂, NR⁶COR⁶, NR⁶CON(R⁶)₂, NR⁶SO₂A, COR⁶, SO₂NR⁶, S(O)_wA, OOCR⁶ and/or C(NH)NOH,

5 and pharmaceutically usable derivatives, salts, solvates and stereoisomers and mixtures thereof.

4. Compounds according to Claim 1 or 2, selected from
- 10 a) 6-{3-[4-(4-fluorobenzyl)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - b) 6-{3-[4-(2,4-difluorobenzyl)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - c) 6-{3-[4-(4-fluorophenoxy)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - 15 d) 4-{3-[4-(4-fluorobenzyl)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - e) 4-{3-[4-(2,4-difluorobenzyl)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - f) 4-{3-[4-(4-fluorophenoxy)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - 20 g) 5-{3-[4-(4-fluorophenoxy)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - h) 5-{3-[4-(4-fluorobenzyl)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - 25 i) 5-{3-[4-(2,4-difluorobenzyl)-1-piperidyl]propyl}-1H-indole-3-carbonitrile;
 - j) 5-{3-[4-(4-cyanophenyl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
 - k) 5-{4-[3-(3-cyano-1H-indol-6-yl)propyl]piperazin-1-yl}benzofuran-2-carboxamide;
 - 30 l) 5-{3-[4-(2-oxo-2H-chromen-6-yl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;

- 5 m) 5-{4-[3-(3-cyano-1H-indol-4-yl)propyl]piperazin-1-yl}-benzofuran-2-carboxamide;
- n) 5-{4-[3-(3-cyano-1H-indol-5-yl)propyl]piperazin-1-yl}-benzofuran-2-carboxamide;
- 10 o) 5-{3-[4-(1H-indol-4-yl)-piperazin-1-yl]propyl}-1-methanesulfonyl-1H-indole-3-carbonitrile;
- p) 5-[3-(4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]dec-8-yl)propyl]-1H-indole-3-carbonitrile;
- 15 q) 5-[3-(4-benzo[1,2,5]thiadiazol-4-ylpiperazin-1-yl)propyl]-1H-indole-3-carbonitrile;
- r) 3-{1-[3-(3-cyano-1H-indol-5-yl)propyl]piperidin-4-yl}-1H-indole-5-carboxamide;
- s) 5-[3-(4-quinolin-8-ylpiperazin-1-yl)propyl]-1H-indole-3-carbonitrile;
- 20 t) 5-{3-[4-(2,3-dihydrobenzo[1,4]dioxin-5-yl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- u) 1-methanesulfonyl-5-[3-(4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]dec-8-yl)propyl]-1H-indole-3-carbonitrile;
- v) 5-{3-[4-(1H-indol-4-yl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- 25 w) 5-{3-[4-(1H-indol-3-yl)piperidin-1-yl]propyl}-1H-indole-3-carbonitrile;
- x) 5-{3-[4-(5-fluoro-1H-indol-3-yl)piperidin-1-yl]propyl}-1H-indole-3-carbonitrile;
- 30 y) 3-{1-[3-(3-cyano-1H-indol-5-yl)propyl]piperidin-4-yl}-1H-indole-5-carbonitrile;
- z) 5-{3-[4-(6-fluoro-1H-indol-3-yl)piperidin-1-yl]propyl}-1H-indole-3-carbonitrile;
- aa) 5-{3-[4-(4-fluoro-1H-indol-3-yl)piperidin-1-yl]propyl}-1H-indole-3-carbonitrile;
- bb) 5-[3-(4-benzo[d]isothiazol-3-ylpiperazin-1-yl)propyl]-1H-indole-3-carbonitrile;

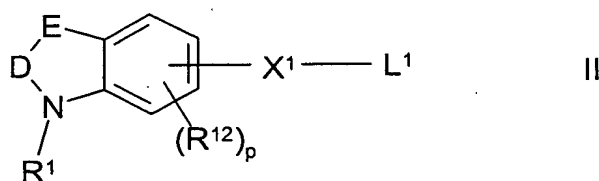
- cc) 4-{1-[3-(3-cyano-1H-indol-6-yl)propyl]piperidin-4-yloxy}benzamide;
- dd) 6-{3-[4-(2-cyano-3-methoxyphenyl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- 5 ee) 6-{3-[4-(4-cyano-3-methoxyphenyl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- ff) 6-{3-[4-(4-cyano-2-methoxyphenyl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- gg) 4-[3-(4-pyrazol-1-ylmethyl-1-piperidyl)propyl]-1H-indole-3-carbonitrile;
- 10 hh) N-(6-{4-[3-(3-cyano-1H-indol-5-yl)propyl]piperazin-1-yl}-2-oxo-2H-chromen-3-yl)acetamide;
- ii) 5-{3-[(pyridin-3-ylmethyl)amino]propyl}-1H-indole-3-carbonitrile;
- jj) 5-{3-[4-(2,3-dihydrobenzo[1,4]dioxin-6-yl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- 15 kk) 5-{3-(4-pyrimidin-2-ylpiperazin-1-yl)propyl}-1H-indole-3-carbonitrile;
- ll) 5-{3-[(2,3-dihydrobenzo[1,4]dioxin-2-ylmethyl)amino]propyl}-1H-indole-3-carbonitrile;
- 20 mm) 5-{3-[4-(3-methoxyphenyl)-3-methylpiperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- nn) 5-{3-[4-(1-methyl-1H-imidazo[4,5-c]pyridin-4-yl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- oo) N-(4-{1-[3-(3-cyano-1H-indol-5-yl)propyl]piperidin-4-ylmethyl}-phenyl)acetamide;
- 25 pp) 5-{3-[4-(4-pyridin-3-ylthiazol-2-yl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- qq) ethyl 2-{4-[3-(3-cyano-1H-indol-5-yl)propyl]piperazin-1-yl}-thiazole-4-carboxylate;
- 30 rr) 5-{3-[3-(2-oxopyrrolidin-1-yl)propylamino]propyl}-1H-indole-3-carbonitrile;

- ss) ethyl (6-{4-[3-(3-cyano-1H-indol-5-yl)propyl]piperazin-1-yl}-2-oxo-2H-chromen-3-yl)carbamate;
- tt) 5-{3-[4-(3-amino-2-oxo-2H-chromen-6-yl)piperazin-1-yl]propyl}-1H-indole-3-carbonitrile;
- uu) methyl (6-{4-[3-(3-cyano-1H-indol-5-yl)propyl]piperazin-1-yl}-2-oxo-2H-chromen-3-yl)carbamate;
- vv) 2-{4-[3-(3-cyano-1H-indol-5-yl)propyl]-piperazin-1-yl}thiazole-4-carboxamide;
- ww) 4-[3-(3-cyano-1H-indol-5-yl)propyl]piperazine-1- thiocarbonyl amide;

and derivatives, salts and solvates thereof.

5. Process for the preparation of compounds of the formula I according to Claim 1 and salts thereof, characterised in that

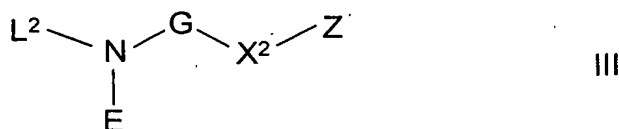
- a) a compound of the formula II



in which

L^1 is Cl, Br, I, OH, a reactively esterified OH group or a diazonium group, and R^1 , D, E, R^{12} , p and X^1 are as defined in Claim 1,

- b) is reacted with a compound of the formula III



in which

L^2 is H or a metal ion, and E, G, X^2 and Z are as defined in
Claim 1,

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and optionally

c) the resultant compound of the formula I is converted into one of
its salts by treatment with an acid.

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6. Process for the preparation of a pharmaceutical composition, characterised in that a compound of the formula I according to Claim 1 and/or one of its physiologically acceptable salts is converted into a suitable dosage form together with at least one solid, liquid or semi-liquid excipient or adjuvant.

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7. Pharmaceutical composition, characterised by a content of at least one compound of the formula I according to Claim 1 and/or one of its physiologically acceptable salts and/or one of its solvates.

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8. Compounds of the formula I according to Claim 1 and physiologically acceptable salts and solvates thereof as medicaments.

9. Compounds of the formula I according to Claim 1 and/or physiologically acceptable salts thereof as excitatory amino acid antagonists.

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10. Compounds of the formula I according to Claim 1 and physiologically acceptable salts and solvates thereof as glycine transporter inhibitor.

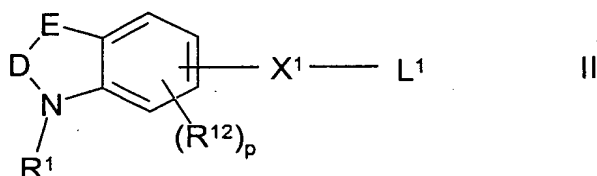
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11. Compounds of the formula I according to Claim 1 and physiologically acceptable salts thereof as excitatory amino acid antagonists for combating neurodegenerative diseases, including cerebrovascular

diseases, epilepsy, schizophrenia, Alzheimer's disease, Parkinson's disease, Huntington's disease, cerebral ischaemia, infarction or psychoses.

- 5 12. Use of the compounds of the formula I according to Claim 1 for the preparation of a medicament for the prophylaxis and/or therapy of diseases in which 5HT plays a role.
- 10 13. Use of the compounds of the formula I corresponding to Claim 12, characterised in that the diseases are selected from the group comprising depression, strokes, cerebral ischaemia, extrapyramidal motor side effects of neuroleptics and of Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis, brain and spinal cord trauma, obsessive-compulsive disorder, sleeping disorders, tardive
- 15 dyskinesia, learning disorders, age-related memory disorders, eating disorders, such as bulimia, and/or sexual dysfunctions.
- 20 14. Use of compounds of the formula I according to Claim 1 and/or physiologically acceptable salts or solvates thereof for the preparation of a medicament for the prophylaxis and/or treatment of schizophrenia, depression, dementia, Parkinson's disease, Alzheimer's disease, Lewy bodies dementia, Huntington's disease, Tourette's syndrome, anxiety, learning and memory impairments, neurodegenerative diseases and other cognitive impairments, as well as nicotine
- 25 dependence and pain.
- 30 15. Use of the compounds of the formula I according to Claim 1 and/or physiologically acceptable salts thereof for the preparation of a medicament for combating neurodegenerative diseases, including cerebrovascular diseases, epilepsy, schizophrenia, Alzheimer's disease, Parkinson's disease, Huntington's disease, cerebral ischaemia, infarction or psychoses.

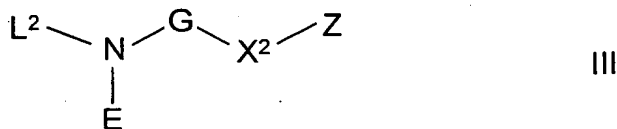
16. Use of the compounds of the formula I according to Claim 1 and/or physiologically acceptable salts thereof for combating neurodegenerative diseases, including cerebrovascular diseases, epilepsy, schizophrenia, Alzheimer's disease, Parkinson's disease, Huntington's disease, cerebral ischaemia, infarction or psychoses.
17. Process for the preparation of pharmaceutical compositions, characterised in that a compound of the formula I according to Claim 1 and/or one of its physiologically acceptable salts and/or one of its solvates is converted into a suitable dosage form together with at least one solid, liquid or semi-liquid excipient or adjuvant.
18. Compounds of the formula II



in which

L^1 is Cl, Br, I, OH, a reactively esterified OH group or a diazonium group, and R^1 , D, E, R^{12} , p and X^1 are as defined in Claim 1.

19. Compounds of the formula III



in which

L^2 is H or a metal ion, and E, G, X^2 and Z are as defined in Claim 1.

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